

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P231928

Luminaire Tested: **FVS4M-2-LD4-30-2HI-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P231928
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-9)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS4M-2-LD4-30-2HI-PFS125-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
2FT LENGTH, 2-MODULE LED WITH PFS125 LENS
Light Source: (84) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

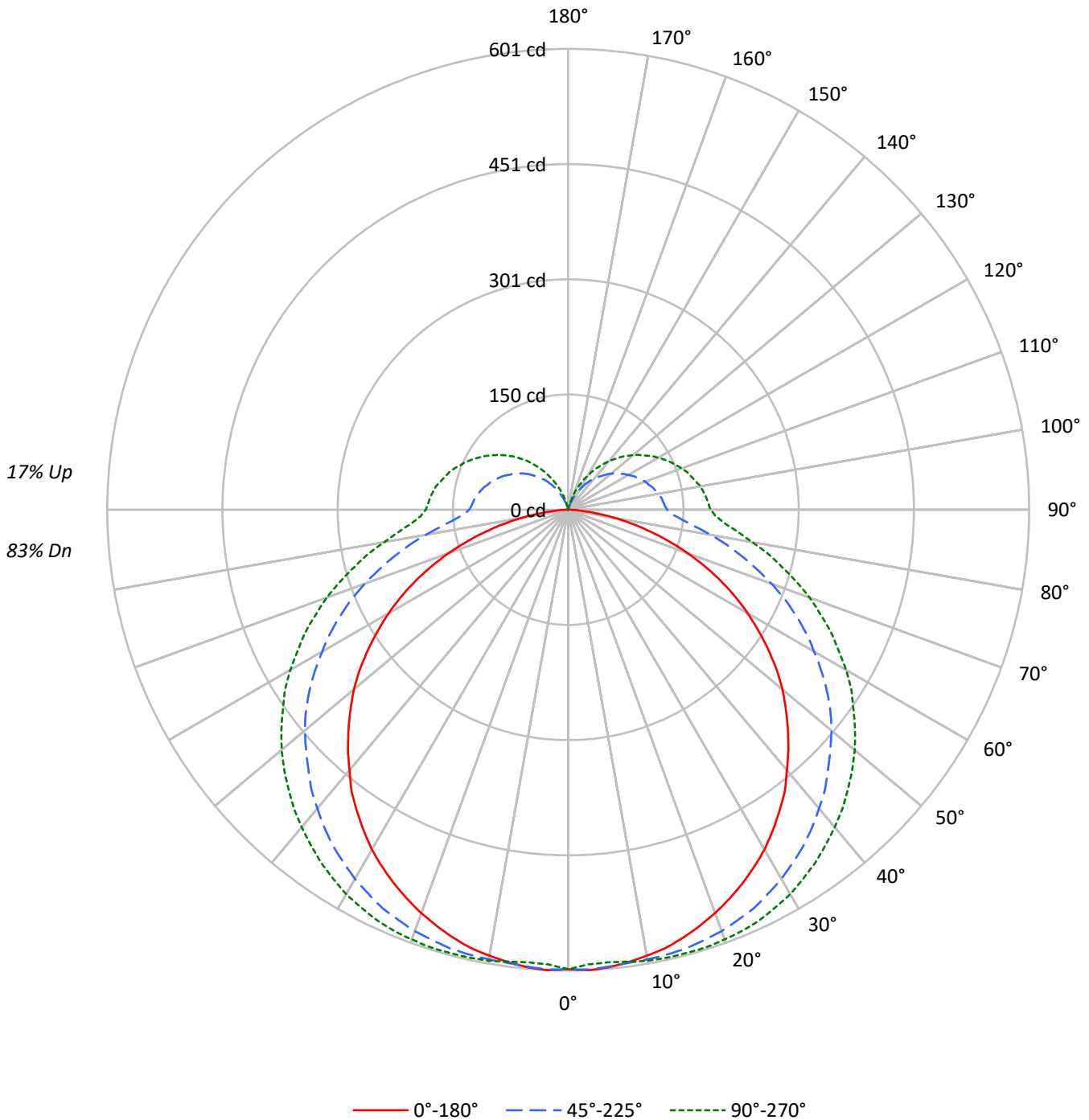
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2689.0 lumens
Efficiency: N/A
Efficacy: 60.0 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.44 / 1.51
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 1.92' x H: 0.19')
CIE Type: Semi-Direct

Input Watts (W): 44.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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CATALOG NUMBER: FVS4M-2-LD4-30-2HI-PFS125-UNV-EDC1

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	115	115	115	115	110	110	110	110	102	102	102	94	94	94	86	86	86	83
1	103	97	92	87	98	93	89	84	86	82	79	79	76	73	73	70	68	65
2	92	83	76	69	88	80	73	67	74	68	63	68	63	59	62	59	55	52
3	84	72	64	57	80	69	61	55	64	57	52	59	53	49	54	50	46	43
4	76	64	54	47	73	61	53	46	56	49	43	52	46	41	48	43	39	36
5	70	56	47	40	66	54	46	39	50	43	37	46	40	35	43	38	33	31
6	64	50	41	35	61	49	40	34	45	38	32	42	35	30	39	33	29	26
7	59	45	36	30	57	44	35	29	41	33	28	38	32	27	35	30	25	23
8	55	41	33	27	53	40	32	26	37	30	25	35	28	24	32	27	23	20
9	51	38	29	24	49	36	29	23	34	27	22	32	26	21	30	24	20	18
10	48	35	27	21	46	34	26	21	31	25	20	29	23	19	27	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10768	10768	10768
5°	10718	10346	10155
10°	10595	9995	9857
15°	10481	9736	9590
20°	10338	9481	9361
25°	10197	9241	9151
30°	10051	8980	8924
35°	9855	8720	8677
40°	9613	8441	8435
45°	9374	8151	8190
50°	9129	7891	7950
55°	8753	7567	7660
60°	8308	7176	7374
65°	7708	6777	7029
70°	6891	6286	6640
75°	5676	5735	6186
80°	4100	5136	5721
85°	1869	4630	5377



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.9	2.1
10°-20°	166.8	6.2
20°-30°	262.2	9.7
30°-40°	330.5	12.3
40°-50°	363.9	13.5
50°-60°	358.1	13.3
60°-70°	311.9	11.6
70°-80°	233.0	8.7
80°-90°	150.4	5.6
90°-100°	120.1	4.5
100°-110°	106.0	3.9
110°-120°	86.9	3.2
120°-130°	65.2	2.4
130°-140°	43.3	1.6
140°-150°	23.8	0.9
150°-160°	9.0	0.3
160°-170°	1.1	0.0
170°-180°	0.0	0.0
0°-30°	485.8	18.1
0°-40°	816.4	30.4
0°-60°	1538.3	57.2
0°-90°	2233.6	83.1
90°-120°	313.0	11.6
90°-150°	445.3	16.6
90°-180°	455.0	16.9
0°-180°	2689.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	599	599	599	599	599	
5°	599	598	598	596	592	57
15°	578	580	592	599	598	163
25°	538	549	573	588	591	248
35°	480	501	535	556	562	300
45°	405	436	479	508	516	313
55°	318	360	412	444	454	285
65°	219	268	328	366	378	217
75°	112	169	235	276	289	119
85°	19	81	149	192	205	25
90°	0	62	129	173	186	1
95°	0	57	124	167	181	0
105°	0	50	114	154	166	0
115°	0	42	99	136	147	0
125°	0	33	82	114	123	0
135°	0	23	62	89	97	0
145°	0	12	42	62	67	0
155°	1	3	19	34	37	0
165°	0	0	2	5	7	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P231928

CATALOG NUMBER: FVS4M-2-LD4-30-2HI-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	599.2	599.2	599.2	599.2	599.2	599.2	599.2	599.2	599.2	599.2	599.2
2.5°	601.2	600.2	600.2	600.2	600.2	600.2	600.2	600.2	600.2	600.2	600.2
5°	599.2	598.3	598.3	598.3	598.3	598.3	599.2	598.3	599.2	598.3	598.3
7.5°	595.4	594.4	594.4	594.4	594.4	595.4	595.4	595.4	595.4	596.4	596.4
10°	590.6	589.6	589.6	589.6	590.6	590.6	591.6	592.5	594.4	595.4	596.4
12.5°	585.8	583.9	584.8	583.9	584.8	585.8	587.7	590.6	592.5	594.4	596.4
15°	578.1	576.2	577.1	577.1	578.1	581.0	583.9	586.7	589.6	592.5	594.4
17.5°	569.4	568.5	568.5	568.5	572.3	575.2	579.0	582.9	585.8	588.7	591.6
20°	559.8	558.8	558.8	559.8	563.7	568.5	572.3	577.1	581.0	584.8	588.7
22.5°	549.2	548.3	548.3	551.2	555.0	560.8	565.6	570.4	575.2	579.0	583.9
25°	537.7	537.7	537.7	541.5	546.3	552.1	557.9	562.7	568.5	573.3	578.1
27.5°	525.2	524.2	525.2	530.0	535.8	542.5	548.3	554.0	559.8	564.6	569.4
30°	511.7	509.8	511.7	517.5	524.2	531.0	537.7	544.4	550.2	556.0	561.7
32.5°	496.3	495.4	497.3	504.0	510.8	518.5	526.1	532.9	539.6	545.4	552.1
35°	480.0	478.1	480.9	489.6	497.3	505.0	512.7	520.4	528.1	534.8	541.5
37.5°	463.6	461.7	465.5	474.2	481.9	490.6	499.2	507.9	515.6	522.3	529.0
40°	443.4	443.4	448.2	456.9	465.5	475.2	483.8	493.4	502.1	508.8	516.5
42.5°	425.1	425.1	430.9	439.6	449.2	458.8	473.2	481.9	486.7	495.4	503.1
45°	404.9	404.9	411.7	421.3	430.9	441.5	452.1	461.7	471.3	479.0	488.6
47.5°	384.8	384.8	393.4	403.0	413.6	425.1	434.8	445.3	455.0	463.6	473.2
50°	364.6	363.6	372.2	382.8	394.4	409.8	417.5	428.0	437.7	448.2	456.9
52.5°	342.4	342.4	352.0	362.6	374.2	385.7	398.2	409.8	421.3	430.9	439.6
55°	318.4	319.3	329.0	340.5	354.0	365.5	378.0	389.6	400.1	411.7	421.3
57.5°	294.3	296.3	306.8	319.3	330.9	344.4	356.9	369.4	380.9	391.5	401.1
60°	270.3	272.2	282.8	294.3	307.8	321.3	335.7	348.2	359.7	370.3	380.9
62.5°	245.3	247.2	257.8	271.2	285.7	299.1	312.6	326.1	337.6	350.1	360.7
65°	219.3	222.2	233.7	246.2	260.7	275.1	289.5	303.0	315.5	328.0	337.6
67.5°	192.4	197.2	207.8	222.2	236.6	251.0	265.5	279.9	293.4	305.9	315.5
70°	166.4	170.3	180.8	197.2	211.6	227.0	241.4	256.8	270.3	281.8	292.4
72.5°	138.5	144.3	156.8	170.3	186.6	202.0	217.4	231.8	246.2	257.8	269.3
75°	111.6	117.3	129.9	146.2	160.6	177.9	192.4	207.8	221.2	234.7	247.2
77.5°	86.6	92.3	104.8	120.2	136.6	152.9	168.3	183.7	199.1	211.6	222.2
80°	61.6	67.3	80.8	96.2	112.5	128.9	146.2	160.6	175.1	188.5	199.1
82.5°	38.5	45.2	58.7	75.0	91.4	107.7	124.1	139.5	153.9	166.4	178.9
85°	19.2	26.0	39.4	56.8	73.1	89.5	106.8	121.2	135.6	149.1	160.6
87.5°	6.7	13.5	26.0	43.3	59.6	76.0	92.3	107.7	123.1	135.6	147.2
90°	0.0	6.7	20.2	36.6	52.9	70.2	86.6	102.0	115.4	128.9	141.4
92.5°	0.0	5.8	18.3	33.7	51.0	67.3	83.7	99.1	113.5	126.0	138.5
95°	0.0	5.8	17.3	32.7	49.1	65.4	81.8	97.1	111.6	124.1	135.6
97.5°	0.0	4.8	16.4	31.7	47.1	64.4	79.8	95.2	108.7	122.2	133.7
100°	0.0	4.8	15.4	29.8	46.2	61.6	77.9	92.3	105.8	119.3	130.8
102.5°	0.0	3.8	14.4	28.9	44.2	59.6	75.0	89.5	103.9	116.4	127.9
105°	0.0	3.8	13.5	27.9	42.3	57.7	73.1	87.5	101.0	113.5	124.1
107.5°	0.0	2.9	13.5	26.0	40.4	55.8	70.2	84.6	97.1	109.7	121.2
110°	0.0	2.9	12.5	25.0	39.4	53.9	68.3	81.8	94.3	106.8	117.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	1.9	11.5	23.1	37.5	51.0	65.4	78.9	91.4	102.9	112.5
115°	0.0	1.9	10.6	22.1	35.6	49.1	62.5	75.0	87.5	99.1	108.7
117.5°	0.0	1.0	9.6	20.2	33.7	46.2	59.6	72.1	83.7	95.2	104.8
120°	0.0	1.0	8.7	19.2	31.7	44.2	56.8	68.3	79.8	90.4	100.0
122.5°	0.0	1.0	7.7	17.3	29.8	41.4	53.9	65.4	76.0	86.6	95.2
125°	0.0	1.0	6.7	16.4	26.9	38.5	50.0	61.6	72.1	81.8	91.4
127.5°	0.0	1.0	5.8	14.4	25.0	36.6	47.1	57.7	68.3	77.9	86.6
130°	0.0	1.0	4.8	13.5	23.1	33.7	44.2	53.9	63.5	73.1	80.8
132.5°	0.0	0.0	3.8	11.5	20.2	30.8	40.4	50.0	59.6	68.3	76.0
135°	0.0	0.0	2.9	9.6	18.3	27.9	37.5	46.2	54.8	62.5	70.2
137.5°	0.0	0.0	1.9	8.7	16.4	25.0	33.7	42.3	50.0	57.7	64.4
140°	0.0	0.0	1.0	6.7	14.4	22.1	29.8	38.5	46.2	52.9	59.6
142.5°	0.0	0.0	1.0	4.8	11.5	19.2	26.0	33.7	41.4	48.1	53.9
145°	0.0	0.0	0.0	3.8	8.7	15.4	22.1	28.9	36.6	42.3	48.1
147.5°	0.0	0.0	0.0	2.9	6.7	12.5	18.3	24.0	30.8	36.6	42.3
150°	0.0	0.0	0.0	1.0	4.8	9.6	15.4	20.2	26.0	30.8	35.6
152.5°	0.0	0.0	0.0	1.0	3.8	7.7	11.5	16.4	20.2	25.0	29.8
155°	1.0	0.0	0.0	0.0	1.9	4.8	8.7	11.5	15.4	19.2	23.1
157.5°	0.0	0.0	0.0	0.0	1.0	2.9	5.8	8.7	11.5	14.4	17.3
160°	1.0	0.0	0.0	0.0	0.0	1.0	2.9	4.8	7.7	9.6	11.5
162.5°	1.0	0.0	0.0	0.0	0.0	0.0	1.0	1.9	3.8	5.8	6.7
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.9	2.9
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	599.2	599.2	599.2	599.2	599.2	599.2	599.2	599.2
2.5°	599.2	598.3	597.3	596.4	595.4	594.4	593.5	593.5
5°	597.3	597.3	596.4	595.4	594.4	593.5	592.5	592.5
7.5°	597.3	597.3	597.3	596.4	596.4	595.4	594.4	594.4
10°	597.3	598.3	598.3	598.3	598.3	597.3	597.3	597.3
12.5°	597.3	599.2	599.2	599.2	599.2	599.2	599.2	598.3
15°	596.4	597.3	598.3	599.2	599.2	599.2	598.3	598.3
17.5°	594.4	596.4	597.3	598.3	598.3	598.3	598.3	598.3
20°	590.6	593.5	594.4	596.4	596.4	597.3	596.4	596.4
22.5°	586.7	589.6	591.6	592.5	593.5	594.4	594.4	594.4
25°	581.0	584.8	586.7	588.7	589.6	590.6	590.6	590.6
27.5°	574.2	578.1	581.0	582.9	583.9	584.8	584.8	584.8
30°	566.5	569.4	573.3	576.2	577.1	578.1	578.1	579.0
32.5°	556.9	560.8	564.6	567.5	568.5	569.4	570.4	570.4
35°	546.3	551.2	554.0	557.9	559.8	560.8	560.8	561.7
37.5°	535.8	540.6	543.5	547.3	549.2	550.2	551.2	551.2
40°	522.3	528.1	531.9	535.8	537.7	539.6	539.6	540.6
42.5°	509.8	515.6	519.4	523.3	526.1	528.1	529.0	529.0
45°	495.4	501.1	505.9	509.8	512.7	514.6	515.6	515.6
47.5°	480.0	486.7	492.5	496.3	499.2	501.1	502.1	502.1
50°	463.6	471.3	476.1	480.9	483.8	485.7	486.7	487.7
52.5°	447.3	454.0	459.8	464.6	468.4	470.4	471.3	471.3
55°	429.0	436.7	441.5	447.3	451.1	452.1	454.0	454.0
57.5°	410.7	417.5	423.2	429.0	431.9	434.8	436.7	437.7
60°	390.5	397.3	404.0	409.8	413.6	416.5	417.5	418.4
62.5°	370.3	378.0	384.8	389.6	393.4	396.3	398.2	397.3
65°	348.2	355.9	362.6	368.4	373.2	376.1	377.1	378.0
67.5°	326.1	335.7	341.5	347.2	351.1	354.9	355.9	355.9
70°	303.0	312.6	320.3	324.2	329.0	331.8	334.7	334.7
72.5°	279.9	288.6	296.3	302.0	305.9	309.7	311.6	311.6
75°	255.9	264.5	273.2	278.9	283.8	286.6	287.6	288.6
77.5°	232.8	242.4	250.1	255.9	260.7	263.6	265.5	267.4
80°	209.7	219.3	227.0	233.7	237.6	241.4	243.4	243.4
82.5°	189.5	199.1	206.8	213.5	217.4	221.2	222.2	223.2
85°	171.2	181.8	188.5	195.3	200.1	203.0	204.9	204.9
87.5°	158.7	168.3	176.0	182.8	187.6	190.5	192.4	192.4
90°	152.0	161.6	169.3	176.0	180.8	183.7	185.6	185.6
92.5°	149.1	158.7	166.4	173.1	177.0	180.8	182.8	182.8
95°	147.2	155.8	163.5	170.3	175.1	178.9	179.9	180.8
97.5°	144.3	153.9	161.6	168.3	172.2	176.0	177.9	177.9
100°	141.4	150.1	157.7	164.5	169.3	172.2	174.1	175.1
102.5°	137.5	147.2	154.9	160.6	165.4	168.3	170.3	170.3
105°	134.7	143.3	151.0	156.8	161.6	164.5	166.4	166.4
107.5°	130.8	139.5	147.2	152.9	156.8	160.6	161.6	162.6
110°	127.0	135.6	142.4	148.1	152.9	155.8	156.8	157.7



TEST NUMBER: P231928

CATALOG NUMBER: FVS4M-2-LD4-30-2HI-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	122.2	130.8	137.5	143.3	147.2	150.1	152.0	152.0
115°	118.3	126.0	132.7	138.5	142.4	145.2	147.2	147.2
117.5°	113.5	121.2	127.9	132.7	136.6	139.5	141.4	141.4
120°	108.7	116.4	123.1	127.9	131.8	134.7	135.6	135.6
122.5°	103.9	111.6	117.3	122.2	126.0	127.9	129.9	129.9
125°	99.1	105.8	111.6	116.4	120.2	122.2	123.1	123.1
127.5°	93.3	100.0	105.8	110.6	113.5	116.4	116.4	117.3
130°	88.5	94.3	100.0	103.9	106.8	109.7	110.6	110.6
132.5°	82.7	88.5	93.3	97.1	101.0	102.9	102.9	103.9
135°	77.0	82.7	87.5	91.4	94.3	95.2	97.1	97.1
137.5°	71.2	76.0	80.8	84.6	87.5	88.5	89.5	89.5
140°	65.4	70.2	74.1	77.9	79.8	81.8	82.7	82.7
142.5°	58.7	63.5	67.3	70.2	73.1	74.1	75.0	75.0
145°	52.9	56.8	60.6	63.5	65.4	67.3	67.3	67.3
147.5°	47.1	51.0	53.9	56.8	58.7	59.6	59.6	59.6
150°	40.4	44.2	47.1	49.1	51.0	51.9	51.9	51.9
152.5°	33.7	37.5	39.4	41.4	43.3	44.2	44.2	45.2
155°	26.9	29.8	32.7	34.6	35.6	36.6	36.6	36.6
157.5°	20.2	23.1	25.0	26.9	27.9	28.9	28.9	28.9
160°	13.5	16.4	18.3	20.2	21.2	21.2	21.2	21.2
162.5°	8.7	9.6	10.6	12.5	13.5	13.5	13.5	13.5
165°	3.8	3.8	4.8	5.8	5.8	6.7	6.7	6.7
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)